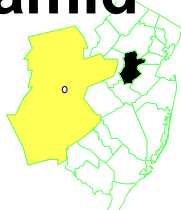


American Cyanamid

NEW JERSEY

EPA ID# NJD002173276



EPA REGION 2 CONGRESSIONAL DIST. 07

Somerset County
Bridgewater Township

Site Description

The site is located in the southeastern section of Bridgewater Township, Somerset County, New Jersey. The site is approximately 575 acres in size. The site is located adjacent to the Raritan River and lies above the Brunswick Aquifer, New Jersey's second largest source for drinking water. On the site are 27 impoundments, both active and inactive, which have been used for disposal of various chemical sludges and other wastes. Investigations conducted by the New Jersey Department of Environmental Protection (NJDEP) have documented groundwater and soil contamination. The site is fenced and restricted. Approximately 14,000 people live within a 3-mile radius of the site. The closest home is 2,000 feet away, and 30 private wells lie close to the site. American Home Products Corporation purchased American Cyanamid Company in 1994 and assumed full responsibility for environmental remediation at the site. NJDEP is the lead agency for the site.

Site Responsibility: This site is being addressed through Federal, State and private party actions.

NPL LISTING HISTORY

Proposed Date: 12/01/82

Final Date: 9/01/83

Threats and Contaminants



Groundwater underlying the area is highly contaminated with various volatile organic compounds (VOCs) such as benzene, chlorobenzene, ethylbenzene, xylene, and metals from site production activities. Sludges and soils sampled in on-site impoundments contain heavy metals, cyanide, and VOCs.

Of the 27 site impoundments, 16 are sources of groundwater contamination. These 16 impoundments have been subdivided into three groups, as described below. The impoundments were used for on-site waste disposal during the plant's operations, and some

of the impoundments are being converted to permanent on-site disposal units as part of the site cleanup. Impoundment waste include, VOCs, Semi-VOCs, and heavy metals.

Site soils were found to contain polychlorinated biphenyls, polyaromatic hydrocarbons, and chromium. On site workers or trespassers may be exposed to contaminants through direct contact with contaminated soils, sludges or ground water. Ground water is not a source of drinking water at this site.



The Hill Property is a 140 acre sub-section of the site. A March 1992 Quantitative Risk Assessment Report, established that there were no current or future unacceptable risks to human health and the environment associated with the Hill Property. Based on this finding, no remedial actions were required for the Hill Property, and on December 29, 1998, the Hill Property portion of the site was deleted from the NPL. The Hill Property has been redeveloped for commercial use, including a minor league baseball stadium.

Cleanup Approach

Site contamination is being addressed in three separate phases: impoundments; site-wide soils; and groundwater and the Hill Property. 16 Impoundments contribute to groundwater contamination. These 16 impoundments are subdivided into groups according to waste-type and location: **Group I** (11, 13, 19 and 24); **Group II** (15, 16, 17, and 18); and **Group III** (1, 2, 3, 4, 5, 14, 20, and 26). NJDEP issued a Record of Decision (ROD) for Group I impoundments in September 1993, a ROD for Group II impoundments in July 1996, and a ROD for Group III impoundments in October 1998. The remedies for the impoundments vary, including on-site and off-site treatment, waste consolidation for on-site placement, off-site recycling and off-site disposal. NJDEP's strategy addresses the most serious impoundments first.

The site cleanup also involves closure and post-closure of four on-site impoundments (Impoundments 6, 7, 8, and 9A) and the construction of a waste consolidation facility (the Impoundment 8 facility). The design includes a triple liner, leachate detection and collection system and ground water monitoring system.

Cleanup Progress



(Actual Construction Underway)



Ground Water: American Cyanamid implemented a pump and treat system in 1982. Approximately 650,000 gallons per day are pumped out of bedrock wells. The pumping contains contamination below the main plant and west yard areas of the site. Quarterly monitoring reports are submitted to NJDEP, which contain information on groundwater quality and site hydrology. Groundwater monitoring results will be used when developing a final site-wide groundwater remediation plan. This plan will be developed after completion of soil remediation.



Impoundments:

Group I Impoundments (11, 13, 19, and 24)

Remediation of the Group I Impoundments, consisting of solidification and consolidation into the Impoundment 8 facility was initiated in accordance with the September 1993 Record of Decision (ROD). The Remediation of Impoundments 19 and 11 was completed. The remediation of Impoundments 13 and 24 will be initiated after completion of the remediation of the Group II and III Impoundments, which are more contaminated. Completion of the remedy for all the Group I impoundments is planned for 2008.

Group II Impoundments (15, 16, 17, and 18)

The Remediation of Group II Impoundments was initiated in accordance with the July 1996 ROD. In the 1996 ROD, the original remedy for Impoundments 15 and 16 called for the consolidation of the material from Impoundment 16 into Impoundment 15, followed by covering with a synthetically lined cap. In 1998, NJDEP received a proposal from American Home Products Corporation for an alternative remedy consisting of recycling/reuse of iron oxide material at an off-site facility. Based on this proposal, NJDEP issued a Superfund Explanation of Significant Differences, which changed the selected remedy in the July 1996 ROD to recycling /reuse. This recycling/reuse activity will be initiated in the summer of 2000.

The remediation of Impoundment 17, Solidification and consolidation into the Impoundment 8, will be initiated after completion of the remediation of the Group III Impoundments.

NJDEP completed security fencing, berm improvements, and maintenance of natural vegetative cover for the Impoundment 18. Completion of the remedy for all the Group II impoundments is planned for 2008.

Group III Impoundments (1, 2, 3, 4, 5, 14,20 & 26)

NJDEP and EPA signed the ROD for the Group III Impoundments on October 8, 1998. The selected remedy includes Low-Temperature Thermal Treatment, Bio-treatment and Consolidation and placement of treated material in Impoundment 8. Remedial design is in progress for the Group III Impoundments. Impoundment 26 remediation starts in the Summer 2000. In addition, pilot testing begins for thermal and bio-treatment for Group III impoundments in Summer 2000. Completion of the remedy for all the Group III impoundments is planned for 2007. Group III impoundments are currently in the remedial design phase and will enter into the remedial action phase in 2003.



Soils

The remedial investigation for the site-wide soil is complete. The soil remediation is on hold until all impoundment remediation is completed, currently targeted for 2008, at which time soil remedial alternatives will be developed.

In 2001 and at the request of the Natural Resources Trustees, NJDEP designated a new operable unit for wetlands, flood plains and other water bodies. As of March 28, 2002, this operable unit is in the remedial investigation and feasibility study phase.